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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,783	08/27/2003	Kenichi Nakama	02410341AA	4483
30743	7590	01/25/2005	EXAMINER	
WHITHAM, CURTIS & CHRISTOFFERSON, P.C.			DOAN, JENNIFER	
11491 SUNSET HILLS ROAD			ART UNIT	
SUITE 340			PAPER NUMBER	
RESTON, VA 20190			2874	

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Applicant(s)

10/648,783

Applicant(s)

NAKAMA ET AL.

Examiner

Jennifer Doan

Art Unit

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15-22 is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☒ Claim(s) 8-14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 013004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

Applicant's election without traverse of claims 1-22 in the reply filed on November 4, 2004 is acknowledged.

***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Information Disclosure Statement***

2. The prior art documents submitted by applicant in the Information Disclosure Statement filed on 01/30/2004, have all been considered and made of record (note the attached copy of form PTO-1449).

***Drawings***

3. The drawings, filed on 01/8/2004, are accepted.

***Specification***

4. Applicants' cooperation is requested in correcting any errors of which applicants may become aware in the specification.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Strake (U.S. Patent 6,370,292).

With respect to claim 1, Strake (figures 1 and 2) discloses an optical connection device for optically coupling at least one optical waveguide (3) in which light propagates to at least one optical element (17) disposed outside the optical waveguide (3), the optical connection device comprising the optical waveguide (3) provided in a board (1) so that an optical axis thereof is parallel with a board surface, a part of the optical waveguide being removal so as to form a groove along a plane angled at a predetermined angle to the optical axis of the optical waveguide (see figure 2); the optical element (17) opposing to the groove of the optical waveguide (3) so that an optical axis of the optical element (17) intersects with the optical axis of the optical waveguide (3); and an optical unit (13) arranged at a position of intersection of the optical axes of the optical element (17) and the waveguide (3) for turning light by reflection from one of the optical axes of the waveguide (3) and the optical element (17) along the other of the optical axes.

With respect to claim 2, Strake (figures 1 and 2) discloses an optical connector device, wherein the optical element (17) is mounted on a surface (shown in figure 2), which is parallel with the board surface (1) at a predetermined distance apart therefrom.

With respect to claims 3 and 4, Strake (column 4, lines 47-49) discloses an optical connector device, wherein the optical element is a light-emitting element and/or a photodetecting element.

With respect to claim 5, Strake (figure 2) discloses an optical connector device, wherein the optical unit for turning light is a prism (13).

With respect to claim 6, Strake (figure 2) discloses an optical connector device, wherein the optical element (17) and the optical unit (13) for turning light are integrated into a single body so as to be aligned to each other, and the single body is fitted into the groove (shown in figure 2), thereby coupling the optical element (17) to the optical waveguide (3).

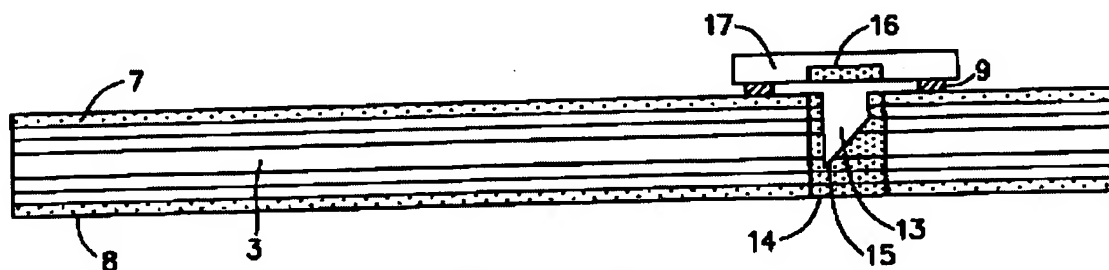


Fig. 2

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Strake (as cited above).

With respect to claim 7, Strake (figures 1 and 2, column 3, lines 44-45) discloses an optical connector device having a plurality of the optical waveguides (3) and the optical element (17).

Strake does not disclose a plurality of the optical elements forming an optical element array. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to reproduce the optical element to make the plurality of the optical elements forming an optical element array, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

***Allowable Subject Matter***

10. Claims 8-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art of record fails to disclose or reasonably suggest an optical connector device further comprising a light-condensing unit interposed between the optical element and the optical unit for turning light as recited in claims 8-14.

11. Claims 15-22 are allowed.

The prior art of record also fails to disclose or reasonably suggest an optical connector device comprising each the first and second optical waveguides having an end surface exposed to a common groove portion angled at a predetermined angle to the optical axes of the first and second optical waveguides respectively; a photodetecting element disposed outside the first optical waveguide; a light emitting element disposed outside the second optical waveguide; and an optical unit disposed in the common groove portion for turning light output from the first optical waveguide to the

photodetecting element and for turning light emitted from the light-emitting element to the second optical waveguide as recited in claim 15.

Claims 16-22 are dependent on the allowable claim 15; therefore, claims 16-22 are also allowed.

### ***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Chen (U.S. 2004/0052463) discloses monitoring an optical signal transmitter. And Jewell et al. (U.S. Patent 6,542,672) disclose an opto-mechanical assembly.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer Doan whose telephone number is (571) 272-2346. The examiner can normally be reached on Monday to Thursday from 6:00 am to 3:30 pm, second Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.



Art Unit: 2874

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in cursive script that reads "Jennifer Doan".

Jennifer Doan

Patent examiner

January 14, 2005